Associations Between Acceptance of Hepatitis B and Influenza Vaccination in Health Care Workers

S.S. Lee*, D.K.P. Tam

Stanley Ho Centre for Emerging Infectious Diseases, Chinese University of Hong Kong, Hong Kong, China

Background: In the health care setting, vaccination of health care workers serves the key purpose of preventing the occurrence of nosocomial infection. Acceptance of vaccination is therefore an important determinant of effective infection control.*Methods:* A self-administered questionnaire survey was conducted in 2007 on nurses in Hong Kong. Participants were asked to indicate their status on influenza vaccination in the preceding season, their intention to be vaccinated in the following year, and hepatitis B vaccination. Reasons for and against their vaccination were collected.

Results: A total of 781 nurses completed the questionnaires. About half (48.8%) were aged between 36 and 45; female to male ratio 6:1; and 54.0% had been in nursing practice for at least 10 years. Above 80% were at frequent or regular contact with patients in the course of their work. After exclusion of hepatitis B carriers, 90.0% had received hepatitis B vaccination before or after joining the nursing profession. Overall, 44.3% had received influenza vaccination in the preceding season. Of those eligible for both vaccines, rejection of influenza vaccination was associated with long working experience (48.2% vs 58.3%, OR = 0.67; 95% CI 0.48, 0.93), frequent contact with patients (56.5% vs 43.9%, OR = 1.67; 95% CI 1.14, 2.38), perceived ineffectiveness of vaccination (81.5% vs 31.5%, OR = 7.58; 95% CI 6.46, 14.20) and rejection of hepatitis B vaccination (70.7% vs 50.8%, OR = 2.34; 95% CI 1.30, 4.22)

Discussion: The low uptake of influenza vaccination in health care workers was associated with a multitude of factors ranging from perceived ineffectiveness of vaccine, work nature, as well as attitude towards other vaccines. Infection control strategies may need to be tailored to the unique health care setting to achieve better coverage of influenza vaccination.

doi:10.1016/j.ijid.2008.05.356

19.010

Post-Marketing Surveillance of the Adverse Events Following Immunization with a New Pentavalent Vaccine (DPT-HB+Hib)

V. Muzio, A. Aguilar, G. Veliz, N. Figueroa, P.A. Diaz, K. Perez, M. Mataran, M.M. Vazquez, D. Quintana-Vazquez*, G. Guillen

Center for Genetic Engineering and Biotechnology, Havana, Cuba

Background: Combination vaccines are an important trend in the development of vaccines to reduce the number of injections and to increase vaccination's coverage. In Cuba a new pentavalent vaccine was recently obtained in a formulation where the DPT-HB component is mixed with the monovalent Hib vaccine, just immediately before its administration.

Objective: Evaluation of the adverse events following immunization (AEFI) with the pentavalent vaccine administered under routine use through the NIP.

Methods: It was planned to include 3000-4000 children, receiving any dose of this vaccine in 42 health areas representing the whole country. The study was carried out from September to December 2006. Nurses were trained to follow up all the AEFI occurring in the 72 hours after vaccination (even causally related or not) and to fill a form containing all this information, with a scale of classification of the most probably found events. Data bases were designed, filled by duplicated, and compared to discard mistakes, before the analyses.

Results: A total of 4059 children were included, 47.5% presented some event during the observation period. The 99.6% of events correspond to those asked in the investigation form. The most frequently adverse events were fever 44.2%, slight fever 15.7%, irritability 11.6% and pain, induration and erythema at the injection 14.9%, 5.5% and 5.1%, respectively. Those events represented the 97% out of the total. Local events represent the 25%. According to the severity AEFI were classified as mild (88%), moderate (11.9%) and severe (0.1%). No death or sequels were reported.

Conclusions: The new pentavalent vaccine is safe and well tolerated in infants <1 year. The AEFI and commonly reported events showed no differences respect previous clinical trials for product registration and vaccines of this kind

doi:10.1016/j.ijid.2008.05.357

19.011

Priming for Pandemic Influenza: Antigen-sparing MF59™-adjuvanted A/H5N1 Vaccine Induces Immunological Memory and Shows Cross-Reactive Potential in Adults Including the Elderly

V.F.H. Brauer[1,*], F. Laghi-Pasini[2], P.L. Capecchi[2], C. Gentile[3], P. di Giovanni[4], T. Staniscia[4], E. Montomoli[3], A. Hilbert[1], S. Tilman[5], P. Durando[6], L. Sticchi[6], R. Gasparini[6], A. Banzhoff[1]

[1] *Novartis Vaccines, Marburg, Germany*
[2] *Department of Allergology and Clinical Immunology, 'Le Scotte' University Hospital, University of Siena, Siena, Italy*
[3] *Department of Pathophysiology, Experimental Medicine and Public Health Laboratory of Molecular Epidemiology University of Siena, Siena, Italy*
[4] *Department of Medicine and Gerontology, University G. D'Annunzio, Chieti, Chieti, Italy*
[5] *Novartis BCDM, Amsterdam, Netherlands*
[6] *Department of Health Sciences Section of Hygiene and Preventive Medicine, University of Genoa, Genoa, Italy*

Background: Priming against strains with pandemic potential, such as H5N1, with vaccines that induce immunological memory and cross-reactivity, may form the first line of defence against a pandemic flu. Safe and effective H5N1 vaccines, particularly those that can induce cross-reactive immunity, are urgently needed for prepandemic vaccination strategies.